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Alfred H. Muratori, *[Signature]* certify that this paper was deposited with the United States Postal Service addressed to the Assistant Commissioner for Patents, Mail Stop Non-Fee Amendment, P.O. Box 1450 Alexandria, VA 22313-1450, first class, postage prepaid on 13 August, 2004.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

SCHMITT et al.

Serial No. 10/019,082

Filed: 27 January, 2003

For: **ELECTRONIC AND OPTICAL
MATERIALS**

Art Unit: 1775

Examiner: Stephen J. Stein

AMENDMENT AND RESPONSE

Assistant Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In respect of the Office Communication mailed 13 July, 2004, kindly consider the following remarks and amendment.

Amendment

Please delete Claims 1-9 as originally filed and enter new Claims 10-25 as shown on the following pages.

Claims 10-25 are pending.

Remarks

Claim Changes:

New Claim 10 includes the limitations of original claims 1 and 2 and is directed to epitaxial Barium Strontium Titanate (BST) on c-plane sapphire, BST ranging from barium titanate to strontium titanate and the mixed oxides. Although the Examiner has cited references showing epitaxial strontium titanate on r-plane sapphire, he has not cited references showing epitaxial barium titanate, epitaxial strontium titanate, or (the mixed oxide) epitaxial barium strontium titanate on c-plane sapphire. Accordingly, Claim 10 is believed to be allowable over all of the cited references.

New Claims 11-16 include the limitations of original claims 4-9 and depend from New Claim 10.

New Claim 17 is directed to epitaxial BST where the atom ratio of Ba to Sr ranges from 10:90 to 90:10. Although the Examiner has cited references showing epitaxial strontium titanate on sapphire, no references has been cited showing the epitaxial mixed oxide, barium/strontium titanate. Accordingly, Claim 17 is also believed to be allowable over all of the cited references.

New Claims 18 and 19 are dependent on New Claim 17 and limit the range of values for x.

New Claims 20-25 include the limitations of original claims 4-9 and depend from New Claim 17.